

a common first substrate transfer device, provided in said substrate transfer section, for transferring substrates into said plurality of modules,

wherein said plurality of modules are piled up adjacent to, but spaced separately from one another in a substantially vertical direction such that said plurality of modules are capable of being attached to and detached from a wall of said substrate transfer section independent of one another,

wherein each of said plurality of modules comprises:

a substrate processing chamber, having a hermetic structure, for processing said substrates;

an intermediate chamber having a hermetic structure and provided between said substrate processing chamber and said substrate transfer section;

a first valve provided between said substrate processing chamber and said intermediate chamber, said first valve capable of establishing hermetic isolation between said substrate processing chamber and said intermediate chamber when closed, and capable of allowing said substrates to pass therethrough when opened; and

a second valve provided between said intermediate chamber and said substrate transfer section, said second valve capable of establishing hermetic isolation between said intermediate chamber and said substrate transfer section when closed, and capable of allowing said substrates to pass therethrough when opened, and

wherein said intermediate chamber is provided with a second substrate transfer device for transferring said substrates to and from said substrate processing chamber.

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14. (Three Times Amended) A substrate processing apparatus, comprising:

a substrate transfer section;

a plurality of modules, each of said plurality of modules being directly detachably mounted to said substrate transfer section; and

a common first substrate transfer device, provided in said substrate transfer section, for transferring substrates into said plurality of modules,

wherein said plurality of modules are piled up adjacent to, but spaced separately from one another in a substantially vertical direction such that said plurality of modules are capable of being attached to and detached from said substrate transfer section independent of one another,

wherein said plurality of modules are piled up adjacent to, but spaced separately from one another in a substantially vertical direction such that said plurality of modules are capable of being attached to and detached from a wall of said substrate transfer section independent of one another,

wherein each of said plurality of modules comprises:

a substrate processing chamber, having a hermetic structure, for processing said substrates;

first and second intermediate chambers provided between said substrate processing chamber and said substrate transfer section, each having a hermetic structure, said first intermediate chamber being located closer to said substrate processing chamber than said second intermediate chamber, and said second intermediate chamber being located closer to said substrate transfer section than said first intermediate chamber;

a first valve provided between said substrate processing chamber and said first intermediate chamber, said first valve capable of establishing hermetic isolation between said

substrate processing chamber and said first intermediate chamber when closed, and capable of allowing said substrates to pass therethrough when opened;

12 a second valve provided between said first intermediate chamber and said second intermediate chamber, said second valve capable of establishing hermetic isolation between said first intermediate chamber and said second intermediate chamber when closed, and capable of allowing said substrate or said substrates to pass therethrough when opened; and

cert a third valve provided between said second intermediate chamber and said substrate transfer section, said third valve capable of establishing hermetic isolation between said second intermediate chamber and said substrate transfer section when closed, and capable of allowing said substrates to pass therethrough when opened,

wherein said second intermediate chamber is provided with a substrate holding device capable of holding said substrates, and

wherein said first intermediate chamber is provided with a second substrate transfer device capable of transferring said substrates between said substrate holding device and said substrate processing chamber.

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